Patent Claims:

1. An apparatus for producing strands (3) by drawing at least one settable liquid (35), in particular a melt, out of a nozzle in a drawing direction (4),
which apparatus includes at least one displacement body (16, 25), which can be arranged in such a manner in the nozzle that it projects out of the nozzle in the drawing direction (4).

2. The apparatus as claimed in claim 1, wherein the displacement body projects out of the nozzle in the axial direction by at least half the shortest dimension of its cross section.

3. The apparatus as claimed in claim 1 or 2, wherein the boundary of the displacement body (16, 25), which is arranged outside the nozzle, ends in a point or sharp edge.

4. The apparatus as claimed in one of the preceding claims, wherein the nozzle comprises an outer shell (12), of which the boundary that is in contact with the strand (3) is designed in such a manner that the detaching of the strand from the nozzle takes place substantially at a defined break-off edge in the axial direction.

5. The apparatus as claimed in one of the preceding claims, wherein the boundary of the outer shell (12) of the nozzle (10) which is in contact with the strand (3) includes a material which is poorly wetted and preferably not wetted at all by the settable liquid.

6. The apparatus as claimed in one of the preceding claims,

which includes connecting elements (22) for connecting the displacement body (16, 25) to the nozzle.

7. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16, 25) can be held by means of a holder (23, 23') such that it can slide in the horizontal and/or vertical direction with respect to the nozzle.

8. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16) is closed off with respect to the surrounding settable liquid and can be arranged within the outer shell (12) of the nozzle.

9. The apparatus as claimed in one of the preceding claims, wherein the displacement body (25) comprises a hollow body which is open with respect to the surrounding settable liquid and can be arranged in the nozzle between the outer shell (12) and the needle (15).

10. The apparatus as claimed in one of the preceding claims, wherein the nozzle has a cylindrical outer shell (12).

11. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16, 25) and/or the needle (15) is cylindrical.

12. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16, 25) is arranged coaxially with respect to the nozzle.

13. The apparatus as claimed in one of the preceding claims, wherein the dimensions of the displacement body and of the

nozzle are matched to one another in a plane perpendicular to their longitudinal axes, in such a manner that the flow resistance of the gap between nozzle (10) and/or needle (15) and displacement body permits a predeterminable throughput at the given viscosity of the settable liquid.

14. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16, 25) is designed in such a manner that its dimensions are not constant in a plane that is perpendicular to its longitudinal axes.

15. The apparatus as claimed in one of the preceding claims, which includes a device for controlling the temperature of the outer shell (12) and/or of the displacement body (16, 25).

16. The apparatus as claimed in one of the preceding claims, wherein a muffle can be arranged beneath the nozzle as the temperature-control device.

17. The apparatus as claimed in one of the preceding claims, wherein a device for direct electrical heating and/or for in particular contactless inductive heating can be used as the temperature-control device.

18. The apparatus as claimed in one of the preceding claims, wherein the temperature-control device comprises at least one temperature-control element, the position of which is variably adjustable.

19. The apparatus as claimed in one of the preceding claims, wherein the temperature-control device comprises at least two

temperature-control elements which are independent of one another.

20. The apparatus as claimed in one of the preceding claims, which includes a device for adjusting and/or controlling and/or regulating the temperature of the outer shell (12) and/or of the displacement body (16, 25).

21. The apparatus as claimed in one of the preceding claims, which includes a device for applying a liquid, in particular by spraying, to the strand (3), in particular to the draw bulb (42).

22. The apparatus as claimed in one of the preceding claims, wherein the displacement body (16, 25) comprises at least one high-melting metal and/or at least one precious metal, in particular platinum, and/or at least one refractory metal and/or at least one alloy thereof and/or ceramic.

23. The apparatus as claimed in one of claims 9 to 22, which includes a device for generating a pressure difference between an interior (31) and an exterior (32) of the strand (3).

24. The apparatus as claimed in one of claims 9 to 23, which includes a device for adjusting and/or controlling and/or regulating the pressure in the interior (31) and/or the exterior (32) of the strand (3).

25. A process for producing strands (3), which comprises the steps of providing a settable liquid (35), in particular a melt, and producing a strand (3) by drawing out of a nozzle in a drawing direction (4), wherein a displacement body (16,

25) is arranged in the nozzle in such a manner that it projects out of the nozzle in the drawing direction (4).

26. The apparatus as claimed in claim 25, wherein the dimensions of the displacement body (16, 25) and of the nozzle (10) are matched to one another in a plane perpendicular to their longitudinal axes in such a manner that the flow resistance of the gap between nozzle (10) and/or needle (15) and displacement body (16, 25) allows a predeterminable throughput at the given viscosity of the settable liquid (35).

27. The process as claimed in claim 25 or 26, wherein the position of the displacement body (16, 25) is horizontally and/or vertically adjustable.

28. The process as claimed in one of claims 25 to 27, wherein as a result of the positioning of the displacement body (16, 25), the length of that part of the displacement body (16, 25) which projects out of the nozzle is set in such a way that the settable liquid (35), at the end of the displacement body (16, 25) which projects out of the nozzle, has a viscosity which is sufficiently high for the entire strand (3) to be under tensile stress during drawing.

29. The process as claimed in one of claims 25 to 28, wherein the temperature of the outer shell (12) and/or of the displacement body (16, 25) is adjusted and/or controlled and/or regulated.

30. The process as claimed in one of claims 25 to 29, wherein the temperature surrounding the strand (3) is set in such a way that the settable liquid, at the lower end of the

displacement body (16, 25), has a viscosity, in particular a mean viscosity over the cross section, which is sufficiently high for the entire strand (3) to be under tensile stress during drawing.

31. The process as claimed in one of claims 25 to 30, wherein the position of at least one temperature-control element is adjusted and/or controlled and/or regulated.

32. The process as claimed in one of claims 25 to 31, wherein a liquid is applied, in particular by spraying, to the strand (3), in particular in the region of the draw bulb.

33. The process as claimed in one of claims 25 to 32, wherein the settable liquid (35) is set to form a rod.

34. The process as claimed in one of claims 25 to 33, wherein the settable liquid (35) is set to form a tube.

35. The process as claimed in one of claims 25 to 34, wherein a pressure difference is generated between an interior (31) and an exterior (32) of the strand (3).

36. The process as claimed in one of claims 25 to 35, wherein the pressure in the interior (31) and/or the exterior (32) of the strand (3) is adjusted and/or controlled and/or regulated.

37. The process as claimed in one of claims 25 to 36, wherein a glass melt is used as the settable liquid (35).

38. A tube or rod made from a substantially amorphous solid, producible in the apparatus as claimed in claims 1 to 24

and/or by the process as claimed in claims 25 to 37.

39. The tube or rod as claimed in claim 38, wherein the solid material comprises a glass.

40. The tube or rod as claimed in either of claims 38 and 39, wherein the surface (33) on the inner side of the tube (3) and/or the surface (37) on the outer side of the tube (3) is substantially smooth.

41. A glass-ceramic rod or glass-ceramic tube, the glass-ceramic comprising in particular Zerodur, produced from the rod or tube as claimed in one of claims 38 to 40.

42. A lens, produced from the rod as claimed in one of claims 38 to 40.

43. A fiber, in particular an optical fiber, produced from the rod and/or tube as claimed in one of claims 38 to 40.